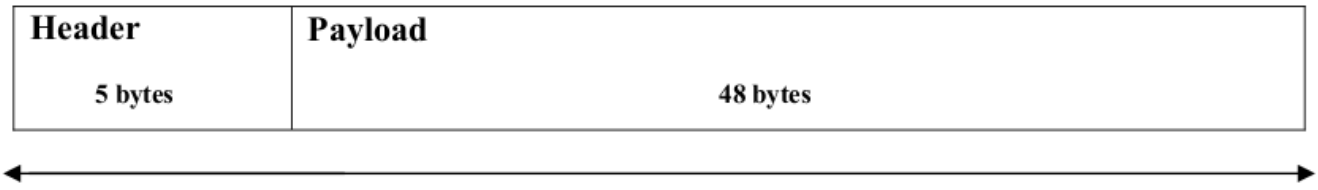
ATM AND CLIENT - SERVER MODEL

ATM

The “asynchronous” in ATM means ATM devices do not send and receive information at fixed speeds or using a timer, but instead negotiate transmission speeds based on hardware and information flow reliability. The “transfer mode” in ATM refers to the fixed-size cell structure used for packaging information.

ATM transfers information in fixed-size units called cells. Each cell consists of 53 octets, or bytes as shown in Fig.



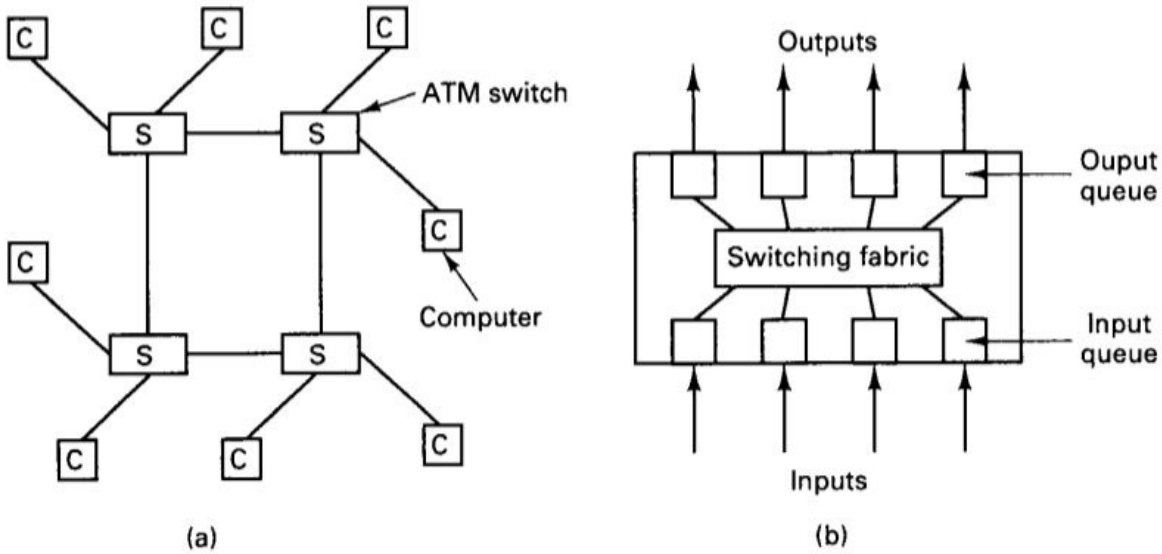
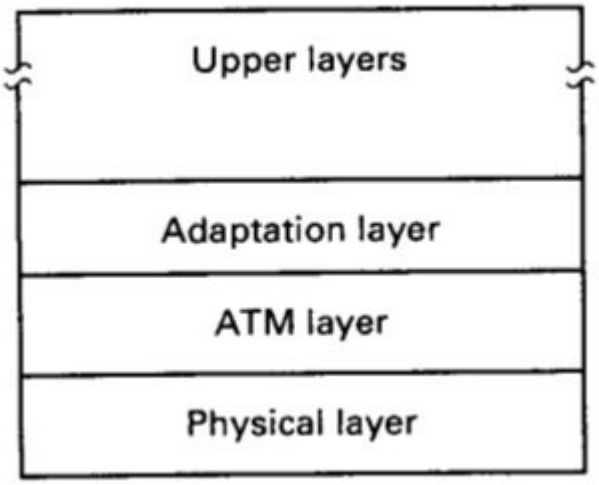


Figure illustrate the ATM network with 4 switches. Each of these switches has 4 ports, each used for both input and output lines. The inside of the generic switch is as shown in fig b.



ATM Layer:

Client-server Model:

The idea behind this model is to structure the operating-system as a group of cooperating process, called servers, that offer services to the users, called clients. The client and server normally all run the same microkernel, with both clients and severs running as user processes. A machine may run a single process or it may run multiple clients, multiple servers or mixture of both.

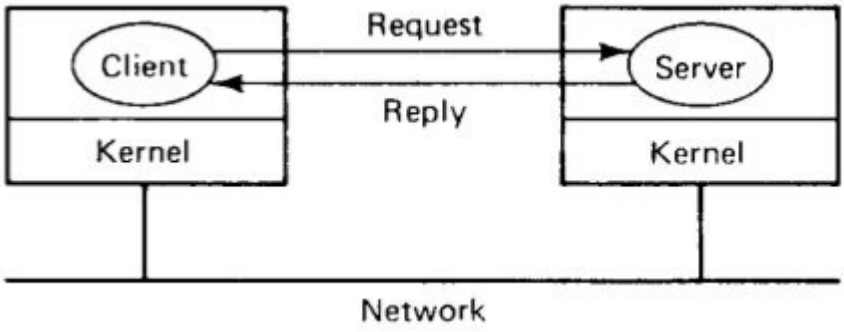


Fig. Client and server model.

To avoid the considerable overhead of the connection oriented protocol such as TCP and OSI, the client-server model is usually based on a simple connectionless request/reply protocol. The client sends a request message to the server asking for some services (eg. read a block of a file). The server does the work and returns the data requested or an error-code indicating why the work could not be performed as shown in the fig above.